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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/976,091	10/15/2001	Koskimies Oskari	017.40746X00	9332

20457 7590 06/14/2005

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EXAMINER
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PATEL, NIRAV B

ART UNIT	PAPER NUMBER
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2135

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/976,091

**Applicant(s)**

OSKARI, KOSKIMIES

**Examiner**

Nirav Patel

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/18/2004</u> | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This action is in response to the application filed on 10/15/2001.
2. Misnumbered claims 39-48 have been renumbered to 38-47. Thus, claims 1-47 are under examination.

### Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 4-11, 39 and 46 are rejected under 35 U.S.C. 102(e) as being anticipated by Scott et al (US Patent No. 6,484,260).

As per claim 1, Scott discloses:

an electronic lock device [**col. 6 lines 29-30 Fig. 1 secure host facilities 4**];

an electronic key device [**col. 6 lines 35-36 Fig. 1 "portable personal identification device (PID) 6"**];

said lock device and said key device being wirelessly connected [**col. 7 lines 35-36 Fig. 1 "Signals 41 can be transmitted between PID 6 and host facility via any wireless transmission method"**];

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said lock device storing a public key and said key device storing a private key of an encryption key pair [**col. 5 lines 12-13 “the host facilities store only an ID code and a public key for each registered person” col. 7 lines 8-10 “A private key that is stored in memory 20 is used with the encryption algorithm for encryption”**];

said lock device being opened when said key device approaches said lock device, and an encrypted signal is exchanged between said lock device and said key device [**col. 3 lines 21-28 “providing access to a secure host facility only to registered persons includes registering one or more registered persons with the host system. Registering each registered person includes storing an ID code associated only with a portable hand-held device under the control of that registered person. The method also includes transmitting an ID code signal from a portable hand-held device to a host facility of the host system”**].

As per claim 2, the rejection of claim 1 is incorporated and further Scott discloses:

lock device and said key device are wirelessly connected using short range communication like Bluetooth protocol [**col. 7 lines 36-39 “Transmission can be via RF, infrared, induction, sound, or the like. In this embodiment, PID communication unit 24 and host communication unit 8 will normally have a short transmission range”**].

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As per claim 4, the rejection of claim 1 is incorporated and further Scott discloses:

lock device stores public keys for a plurality of authorized key holders [**col. 7 lines 24-26 “Fig. 1 Memory 36 stores ID codes of enrolled individuals who have registered with host system 30. Memory 36 also stores public keys associated with respective ones of the stored ID codes”**].

As per claim 5, the rejection of claim 1 is incorporated and further Scott discloses:

public key is stored in a plurality of lock devices for which entry is authorized for said key device [**col. 6 lines 29-31 “access to one or more secure host facilities 4 only to registered persons”**].

As per claim 6, the rejection of claim 1 is incorporated and further Scott discloses:

a different public key ( i.e. registered persons) is stored in each lock device for which entry is authorized for said key device [**col. 6 lines 30-31 “access to one or more secure host facilities 4 only to registered persons (i.e. who have different public key)”**].

As per claim 7, the rejection of claim 1 is incorporated and further Scott discloses:

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electronic key device is a portable wireless device carried by a user [*col. 6 lines 37-40* “PID 6 is small enough to carry on ones person, being similar in size to a hand-held pager. An example of a PID 6 is shown being held in the palm of a man's hand 10 in FIG. 3”].

As per claim 8, the rejection of claim 6 is incorporated and further Scott discloses:

electronic key device is a wireless telephone [*Fig. 4A-4D col. 8 line 18* “a small cellular telephone”].

As per claim 9, the rejection of claim 6 is incorporated and further Scott discloses:

electronic key device is worn by the user [*Fig. 5B belt clip 58*].

As per claim 10, the rejection of claim 1 is incorporated and further Scott discloses:

key device includes a power source, a processor, non-volatile memory and a transmitter/receiver unit [*Fig. 1 (Processor Circuit, Memory, Transmitter Module and Receiver Module) col. 6 line 35* “battery powered, portable personal identification device(PID) 6”].

As per claim 11, the rejection of claim 10 is incorporated and further Scott discloses:

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key device further includes a user authentication device [Fig. 1 component 12 optics unit *col. 6 lines 62-63* “fingerprint image signal is representative of an image of a fingerprint of the enrolled individual, *col. 7 line 3* PID 6 would be used to perform an identification verification”].

As per claim 39, is rejected for the same reason set forth in the rejection of claim 1 above and further Scott discloses:

sending a random signal from said lock device to said key device [*col. 3 lines 39-41* “transmitting the random number signal from the host facility to the transmitting device”];

encrypting said random signal in said key device using said private key [*col. 3 lines 50-53* “encrypting the random number signal with the transmitting device, the random number signal being encrypted according to an encryption algorithm employing a private key associated only with the transmitting device”];

returning said encrypted random signal to said lock device [*col. 3 lines 54-55* transmitting the encrypted random number signal from the transmitting device to the host facility] ;

decrypting said encrypted random signal in said lock device, comparing the result with said random signal and opening said lock device if a match is obtained [*col. 3 lines 59-63* “decrypting the encrypted random number signal with the host system, including employing the retrieved public key, and providing the user access to

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**the host facility only if the decrypted encrypted random number signal represents the random number”].**

As per claim 46, is rejected for the same reason set forth in the rejection of claim 39 above and further Scott discloses:

broadcasting a service offer from said lock device (i.e. transmit the signal from lock device) [*col. 3 lines 39-40* “**transmitting the random number signal from the host facility**”];

sending a key device identifier stored in said ticket to said lock device (i.e. sending ID code to lock device) [*col. 3 lines 26-28* “**transmitting an ID code signal from a portable hand-held device to a host facility (lock device) of the host system**”].

### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scott et al (US Patent No. 6,484,260).



As per claim 3, Scott discloses the subject matter as discussed in claim 1.

Scott does not explicitly disclose virtual lock device in a form of a software module. Scott discloses that a host facility 4 may be a bank, a store, a military base, a computer system, an automobile, a home security system, a gate, or any other facility where it is desired to restrict access to selected individuals **[col. 6 lines 31-34]**. Thus the lock device in Scott is operating in a computer system, which evidently employs software programs for running the system.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use virtual lock device in a form of a software module (which is operating in the computer system). The modification would be obvious because one of ordinary skill in the art would be motivated to use virtual lock device in a form of software module so that it can be controlled an access to digital resources (in the computer system).

5. Claims 12-32, 40-43, 45 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scott et al (US Patent No. 6,484,260) and further in view of Rosen (US Patent No. 6,175,921).

As per claim 12, is rejected for the same reason set forth in the rejection of claim 1 above and further Scott discloses:

key device containing electronic tickets (i.e. to grant the access authority to others) for distribution to others( i.e. second user) which also open said lock device (i.e. access to the host facility), said tickets being generated by said key device **[col. 3 lines 5-19 "a**

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first transmission comprising a first user signal at the host facility, generating and then transmitting a random number signal from the host facility only if the first user signal represents one of the stored ID codes, receiving a second transmission comprising a second user (i.e. others) signal at the host facility, decrypting the second user signal with the public encryption key associated with the registered person who is also associated with the stored ID code represented by the first user signal (i.e. a first user grants an access authority to a second user), and providing access to the host facility only if the decrypted second user signal represents the random number”].

Scott doesn't disclose electronics ticket and optional limits (i.e. expired date or part of resources or number of times)

However, Rosen discloses optional limits (i.e. expired date or part of resources or number of times use).

electronic ticket [*col. 4 lines 40-43* “(Tickets) Electronic merchandise is any goods that can be represented in electronic form, and in the preferred embodiment described herein consists of either a ticket or an encrypted electronic object (EO) Referring to FIGS. 1 and 2, a ticket 8 is an electronic item created by a MTA 4 (key device) and transferred to a CTA 2 (ticket holding device) during a purchase transaction” *col. 4 lines 7-8* “when buyer and seller are transacting electronically”].

ticket with optional limits (i.e. expired date or part of resources or number of times use) [*Fig. 2 col. 5 lines 51-52* “The field 24 also contains the expiration

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**date of the ticket receiver's trusted agent credential" col. 6 lines 12-13 "A Usage field 46 specifies restrictions on usage of the electronic object" col. 6 lines 42-44 "Time Available field 116 indicating the remaining value of the ticket; and an In Use field 118"]].**

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teaching of Rosen into the teaching of Scott to use electronic ticket with optional limits. The modification would be obvious because one of ordinary skill in the art would be motivated to use electronic ticket with an access right so that third party (ticket holder) can only access resources with certain limitation (e.g. only during validity period or number of times or part of resources).

As per claim 13, the rejection of claim 12 is incorporated and is rejected for the same reason set forth in the rejection of claim 3 above.

As per claim 14, the rejection of claim 13 is incorporated and further Rosen discloses:  
ticket grants access to at least part of the said digital resources [**col. 6 lines 42-44 "A Usage field 46 (Fig. 2 Ticket 8) specifies restrictions on usage of the electronic object"]].**

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As per claims 15, 16, 17, the rejection of claim 12 is incorporated and these claims are rejected for the same reason set forth in the rejection of claim 14 above.

As per claim 18, the rejection of claim 12 is incorporated and further Rosen discloses:  
tickets can be transferred electronically [**col.4 lines 7-8 “when buyer (key device) and seller (ticket holder) are transacting electronically”**].

As per claim 19, the rejection of claim 18 is incorporated and is rejected for the same reason set forth in the rejection of claim 3 above.

As per claim 20, the rejection of claim 19 is incorporated and is rejected for the same reason set forth in the rejection of claim 14 above.

As per claim 21, the rejection of claim 12 is incorporated and further Scott discloses:  
a display for indicating the number of available tickets [**Fig. 5A a liquid crystal display 50 col. 8 lines 19-20 “liquid crystal display 50 for displaying data being entered with keypad 48 and for displaying status signals to the user”**].

As per claim 22, the rejection of claim 12 is incorporated and rejected for the same reason set forth in the rejection of claim 14 above.

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As per claim 23, the rejection of claim 12 is incorporated and further Scott discloses:

additional information unrelated to the electronic lock and key devices [**col. 2 lines 56-59 “the memory in the smart card stores a fingerprint template(i.e. additional information) representative of the fingerprint of an enrolled person, and an ID code and a personal encryption key being associated with the device”**].

As per claim 24, the rejection of claim 23 is incorporated and further Scott discloses:

additional information contains user-related information [**col. 2 lines 56-59 “the memory in the smart card stores a fingerprint template representative of the fingerprint of an enrolled person (i.e. user-related information), and an ID code and a personal encryption key being associated with the device”**].

As per claim 25, the rejection of claim 12 is incorporated and is rejected for the same reason set forth in the rejection of claim 23 above.

As per claim 26, the rejection of claim 25 is incorporated and is rejected for the same reason set forth in the rejection of claim 24 above.

As per claim 27, the rejection of claim 12 is incorporated and is rejected for the same reason set forth in the rejection of claim 24 above.

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As per claim 28, the rejection of claim 12 is incorporated and is rejected for the same reason set forth in the rejection of claim 24 above.

As per claim 29, the rejection of claim 12 is incorporated and is rejected for the same reason set forth in the rejection of claim 24 above.

As per claim 30, the rejection of claim 12 is incorporated and further Scott discloses:

lock device stores a list of invalid key devices [**col. 3 lines 5-7 “a host facility includes the step of registering one or more persons with the host facility, including storing a unique ID code (i.e. ID code for valid key device)”** ].

As per claim 31, the rejection of claim 12 is incorporated and further Scott discloses:

lock device stores a use counter for n-use tickets [**col. 8 lines 11-12 “the synchronization counter for each PID 6A which is used to access a function of host system 4A”**].

As per claim 32, the rejection of claim 12 is incorporated and further Scott discloses:

lock device includes an identification number where the identification number is hierarchical (e.g. “customer number”, “site number”, “lock number”) [**col. 5 lines 12-14**

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**“the host facilities store only an ID code and a public key for each registered person. The ID code may be the serial number of the device”].**

As per claim 40, the rejection of claim 39 is incorporated and is rejected for the same reason set forth in the rejection of claim 12 above.

As per claim 41, the rejection of claim 40 is incorporated and is rejected for the same reason set forth in the rejection of claim 15 above.

As per claim 42, the rejection of claim 40 is incorporated and is rejected for the same reason set forth in the rejection of claim 16 above.

As per claim 43, the rejection of claim 40 is incorporated and is rejected for the same reason set forth in the rejection of claim 17 above.

As per claim 45, this claim is rejected for the same reason set forth in the rejection of claim 12 above and further Rosen discloses:

assigning a unique ticket identifier (i.e. ID code) to said ticket [**col.5 lines 44-46 Fig. 2 “the Identifier section 10 has a field 22 which holds information that identifies the merchant or authority creating the ticket”];**

digital signing said ticket with a private key of said key device [**col. 7 lines 31-34 “The Issuer Signature section 14 of a ticket 8 holes a digital signature, formed by the**

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**ticket creator, over the Identifier and Components sections 10, 12. Such signature is made using a private key belonging to the issuer's trusted agent”].**

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teaching of Rosen into the teaching of Scott to use identifier and digital signing with ticket. The modification would be obvious because one of ordinary skill in the art would be motivated to use the identifier with ticket so that receiver can identify the merchant (i.e. ticket's issuer) and use the digital signature for the authentication purpose.

As per claim 47, the rejection of claim 46 is incorporated. Claim 47 is rejected for the same reason set forth in the rejection of claim 14 above and further Scott discloses:

verifying said ticket in said lock device after said comparing and before said opening **[col. 3 lines 58-60 “verify that the user is the enrolled person, decrypting the encrypted random number signal with the host system”] ;**

verifying including decrypting the checksum with a public key **[col.3 lines 59-63 “decrypting the encrypted random number signal with the host system, including employing the retrieved public key, and providing the user access to the host facility only if the decrypted encrypted random number signal represents the random number”].**



6. Claims 33-37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scott et al (US Patent No. 6,484,260) and in view of Barlow et al (US Patent No. 6,038,551).

As per claim 33, is rejected for the same reason set forth in the rejection of claim 1 above and Barlow discloses:

an electronic control device **[Fig. 1 component 10 (computer system)]**;  
control device being connectable to said electronic key device for loading said private key and other data into said key device **[col.7 lines 51-54 "A card reader 26 is coupled to the computer 12. The card reader 26 interfaces with the IC card (key device) 14 (electronically, magnetically, RF, or otherwise) to transfer information to and from the IC card" col. 9 lines 50-62 Fig.2 "the card management services module 38 communicates with the IC card to perform the administrative task. As an example, the administrative tasks include initialization of the IC card, cryptographic key generation, passcode configuration, management of cryptographic keys on the IC card"]**.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teaching of Barlow into the teaching of Scott to use an electronic control device. The modification would be obvious because one of ordinary skill in the art would be motivated to use a control device to provide different type of services like configuration services, security service) to the key device **[Barlow, col. 9 lines 42-47]**.

As per claim 34, the rejection of claim 33 is incorporated and is rejected for the same reason set forth in the rejection of claim 3 above.

As per claim 35, the rejection of claim 33 is incorporated and further Barlow discloses:

key device is non-interactive with a user [*col. 9 lines 50-62 Fig.2* “the card management services module 38 communicates with the IC card (i.e. key device (IC card) is non-interactive with a user) to perform the administrative task. As an example, the administrative tasks include initialization of the IC card, cryptographic key generation, passcode configuration, management of cryptographic keys on the IC card”].

As per claim 36, the rejection of claim 33 is incorporated and further Barlow discloses:

control device loads said key device remotely and electronically [*col. 7 lines 51-54* “A card reader 26 is coupled to the computer 12. The card reader 26 interfaces with the IC card 14 (electronically, magnetically, RF, or otherwise) to transfer information to and from the IC card” *col. 7 lines 61-63* “In other implementations, the card reader 26 might be implemented to communicate with the IC card 28 in a wireless or remote fashion without the physical coupling”].

As per claim 37, the rejection of claim 33 is incorporated and further Barlow discloses:

key device further loads (i.e. transfer) data (i.e. information) into another key [**col. 7 lines 51-54** “The card reader 26 interfaces with the IC card 14 (electronically, magnetically, RF, or otherwise) to transfer information to and from the IC card”].

As per claim 38, the rejection of claim 33 is incorporated and further Barlow discloses:

confirmation data is input into said control device (i.e. input data enter by keyboard 20 to computer system 10) which forwards confirmation to said key device (i.e. transfer information to IC card 28) [**Fig. 1 keyboard 20 or other input device, col. 7 lines 18, lines 51-54** “A card reader 26 is coupled to the computer 12. The card reader 26 interfaces with the IC card 14 (electronically, magnetically, RF, or otherwise) to transfer information to and from the IC card (key device)”].

7. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scott et al (US Patent No. 6,484,260), in view of Rosen (US Patent No. 6,175,921) and further in view of Barlow et al (US Patent No. 6,038,551).

As per claim 44, the rejection of claim 40 is incorporated. Scott and Rosen don't explicitly disclose an electronics control device and loading the private key into the key device. Barlow discloses:

an electronic control device [**Fig. 1 component 10 (computer system)**];

loading said private key into said key device from said control device  
[*col.7 lines 51-54* "A card reader 26 is coupled to the computer 12. The card reader 26 interfaces with the IC card (key device) 14 (electronically, magnetically, RF, or otherwise) to transfer information to and from the IC card" *col. 9 lines 50-62* Fig.2 "the card management services module 38 communicates with the IC card to perform the administrative task. As an example, the administrative tasks include initialization of the IC card, cryptographic key generation, passcode configuration, management of cryptographic keys on the IC card"]].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teaching of Barlow into the teaching of Scott to use an electronic control device. The modification would be obvious because one of ordinary skill in the art would be motivated to use a control device to provide different type of services like configuration services, security service) to the key device [*Barlow, col. 9 lines 42-47*].

### **Conclusion**

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Colvin (US Patent No. 6,460,142) discloses a method and apparatus for providing repeated contact with a software user to transfer information which may include advertising, promotional, or marketing information include repeatedly contacting the software manufacturer or third party representative or agent for continued use of the software. The invention provides for automatically obtaining authorization information in addition to marketing, advertising, and/or promotional information prior to expiration of each authorization interval or period.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nirav Patel whose telephone number is 571-272-5936. The examiner can normally be reached on 8 am - 4:30 pm (M-F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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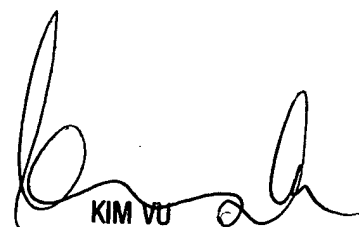
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